UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/484,098	01/18/2000	Albert D. Baker	19-3	9279

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EXAMINER
TODD, GREGORY G

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/484,098	BAKER ET AL.
	Examiner	Art Unit	
	Gregory G. Todd	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *26 October 2004*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-21* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Appeal Brief

1.   This is a fifth office action in response to applicant's appeal brief filed, 26 October 2004, of application filed, with the above serial number, on 18 January 2000 in which claims 1-21 are pending in the application.

In view of the Appeal Brief filed on 26 October 2004, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-3, 5-13, and 15-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bhatia (hereinafter "Bhatia", 6,563,824) in view of Sasyan et al

(hereinafter "Sasyan", 6,222,842).

Bhatia teaches the invention, substantially, as claimed including a LAN modem

remotely assigning related addresses (see abstract).

As per Claims 1,11 and 21, Bhatia teaches an apparatus, a method, and a

machine-readable medium storing one or more programs for use in interfacing a local

network to one or more external network elements, wherein Bhatia teaches:

a gateway (LAN modem) coupled between the local network and the one or more

external network elements, the gateway being operative to determine remotely-

assigned address information for a given device attached to the local network (ISP

dynamically assigns public IP address (eg. 198.6.1.1) to local workstation) (at least col.

6, lines 9-28);

establish an address for use by at least one other device attached to the local

network when communicating with the given device (other workstations assigned an IP

address based on 192.168.1.1, namely 192.168.1.4 and 192.168.1.5 given by the LAN

modem) (at least col. 6, lines 9-60; col. 4, lines 43-65).

Bhatia teaches establishing private IP addresses for other workstations (other

devices) on the LAN, however, such addressing is based on a LAN private IP address

range (192.168.x.x) (at least col. 5, lines 1-10; col. 6, lines 9-28). Bhatia fails to explicitly

teach a substitution address for another device being based, at least in part, on the

remotely assigned address information. However, the use and advantages for using

such a dependent addressing scheme is well known to one skilled in the art at the time

the invention was made as evidenced by the teachings of Sasyan. Sasyan teaches

using a virtual address being chosen dependent on another IP address wherein a

machine M has a set of even virtual IP addresses to communicate with a machine T

having a corresponding set of odd virtual IP addresses (at least col. 7, lines 26-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the use of Sasyan's system into Bhatia's system as

this would enhance Bhatia's system to, as Bhatia teaches (see col. 4, lines 43-65), not

having local (private) packets travel off the LAN to a remote network.

As per Claims 2 and 12.

the remotely-assigned address information comprises an Internet protocol (IP)

address assigned to the at least one device by an external (ISP) network element (at

least col. 6, lines 9-28).

As per Claims 3 and 13.

the local network comprises a local area network (LAN / Intranet) (at least Fig.

2C, col. 6, lines 9-12).

As per Claims 5 and 15.

the gateway stores remotely-assigned address information for each of a plurality

of devices attached to the local network (tables) (at least col. 11, lines 9-66).

As per Claims 6 and 16.

the gateway stores a set of address information for each of the plurality of

devices, the set of address information for a given one of the devices comprising an

address to be used by the given device in communicating with the gateway, and

addresses to be used by the given device in communicating with each of the other

devices (private and public IP address stored in tables; eg. using address of

192.168.1.1 for communicating with LAN modem) (at least col. 12, lines 51-61; col. 11,

lines 9-66; col. 6, lines 9-28).

As per Claims 7 and 17.

the stored information comprises an address substitution matrix having a row of

address information for each of the plurality of devices attached to the local network

(tables) (at least col. 12, lines 51-61).

As per Claims 8 and 18.

a given one of the sets of address substitution information for a particular one of

the plurality of devices comprises a set of IP addresses, each of which is sub-network

compatible with an IP address remotely assigned to the corresponding device, such that

communications between the given device and another one of the devices attached to

the local network are not routed through an external network element (private IP

addresses never routed beyond LAN) (at least col. 5, lines 25-48).

As per Claims 9 and 19.

the gateway processes a particular received packet in order to replace remotely-

assigned address information in a header thereof with a corresponding substitution

address determined by the gateway (at least Fig. 5-6; col. 12 line 62 - col. 13 line 25).

As per Claims 10 and 20.

the gateway intercepts at least one of control information and maintenance

information received over the local network and associated with the given device so as

to perform related services on behalf of the given device (at least col. 10 line 48 - col. 11

line 7; col. 9, lines 22-55).

4.   Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bhatia in view of Sasyan and further in view of Gelman et al (hereinafter "Gelman",

6,493,348).

Bhatia and Sasyan do not explicitly disclose the gateway comprising an ADSL

termination unit-receive device (ADSL modem). However, the use and advantages for

using such a modem is well known to one skilled in the art at the time the invention was

made as evidenced by the teachings of Gelman (at least Gelman col. 6, lines 5-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to incorporate the use of specifically an ADSL modem into Bhatia

and Sasyan's gateway / LAN modem because this would simply expand the

compatibility of the modems used in the gateway (at least col. 4, lines 17-25; col. 7,

lines 48-52) with future systems and networks such as xDSL / ADSL networks and

ATU-R's.

Response to Arguments

5.   Applicant's arguments, see pp. 4-6, filed 26 October 2004, with respect to the

rejection(s)of claim(s) 1, 11, and 21 under 35 USC 102(e) have been fully considered

and are persuasive. Therefore, the rejection has been withdrawn. However, upon

further consideration, a new ground(s) of rejection is made in view of Bhatia in view of

Sasyan.

6.   Applicant's arguments filed 26 October 2004, with respect to the rejection(s)of

claim(s) 6, 8, 10, 16, 18, and 20 have been fully considered but they are not persuasive.

Applicant's argue Bhatia does not teach a) storing a set of address substitution

information for the devices; b) ensuring that communications between devices on a LAN

do not go through an external network; and c) interception of control and maintenance

information.

In response to a), Bhatia teaches private and public IP address stored in tables

such as a NAT table to store and translate between the private and public addresses of

a given device on the LAN. For example, such private addresses allow communication

directly with the LAN modem by using a destination address of 192.168.1.1 and

similarly with another device on the LAN (see col. 12, lines 51-61; col. 11, lines 9-66;

col. 6, lines 9-28). Further, Sasyan teaches a correspondence table for translation

between "substitution" virtual IP addresses and ATM addresses and real IP addresses

(see col. 7, lines 1-15; col. 8, lines 18-32).

In response to b), Bhatia's use of private or local IP address range subset has

the primary purpose, in fact, for ensuring such communication does not get routed off of

the LAN. The LAN modem of Bhatia determines from the destination address of a

packet if the packet is to be routed to an external network element and if so, establishes

a connection with a service provider, else the packets stay within the LAN (see col. 4,

lines 43-65). Thus Bhatia and Sasyan teach Applicant's goal of ensuring that communications between devices on a LAN do not go through an external network is achieved.

In response to c), As described above, Bhatia teaches ensuring that communications between devices on a LAN do not go through an external network, and further teaches a configuration manager executing on the LAN modem, of which provides control for connecting to a remote network and other processes on behalf of communication for a device connected to the LAN modem (see col. 9, lines 22-55; col. 10 line 48 - col. 11 line 7).

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Newly cited Tari et al and Radia et al, in addition to previously cited Arrow et al, Sekine et al, and Slemmer et al, RFC 1597, Kracht, Gervais et al, Akatsu et al, Nonaka et al, Hong et al, Zisapel et al, Subramaniam et al, Howes et al, Millet et al, and Weiman as well as newly cited Nonaka et al (packet substitution gateways) and Datta et al (multiple routers controllable by address configuring gateway) are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G. Todd whose telephone number is (571)272-

4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm w/

first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd

Patent Examiner

Technology Center 2100

SALEH NAJJAR
PRIMARY EXAMINER